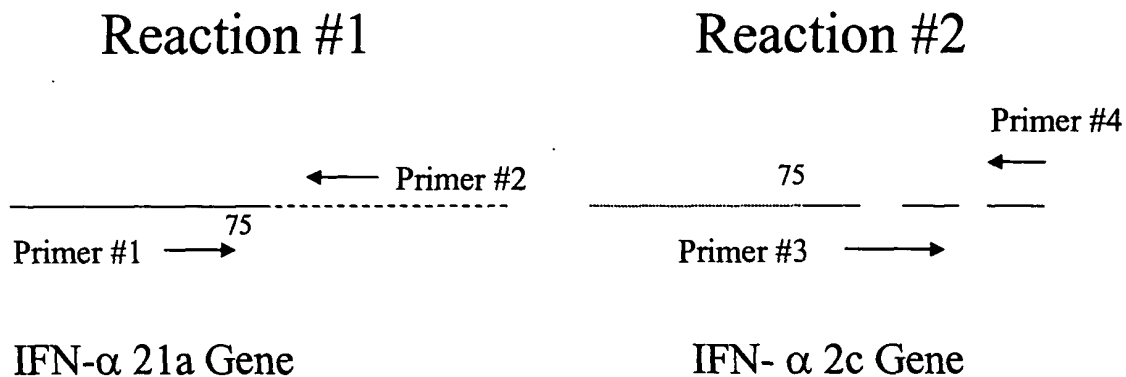


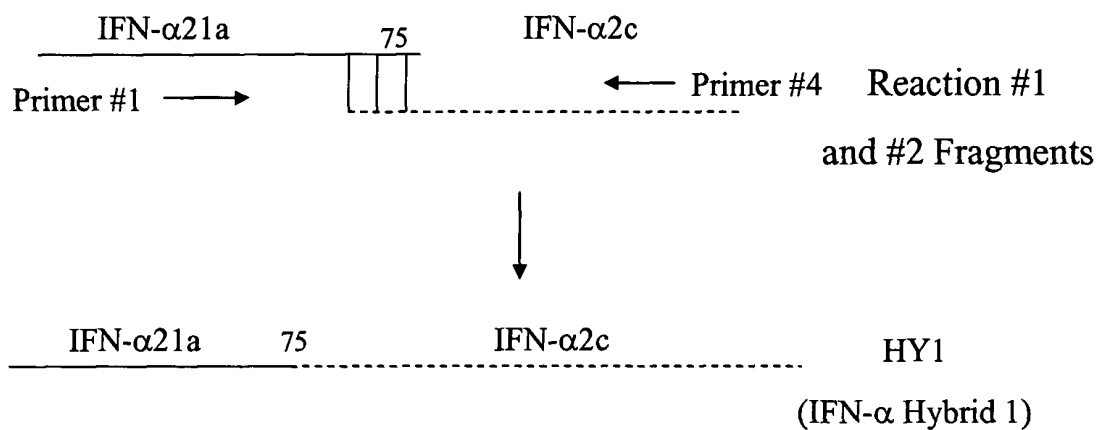
PCR #1



↓ PCR Amplification



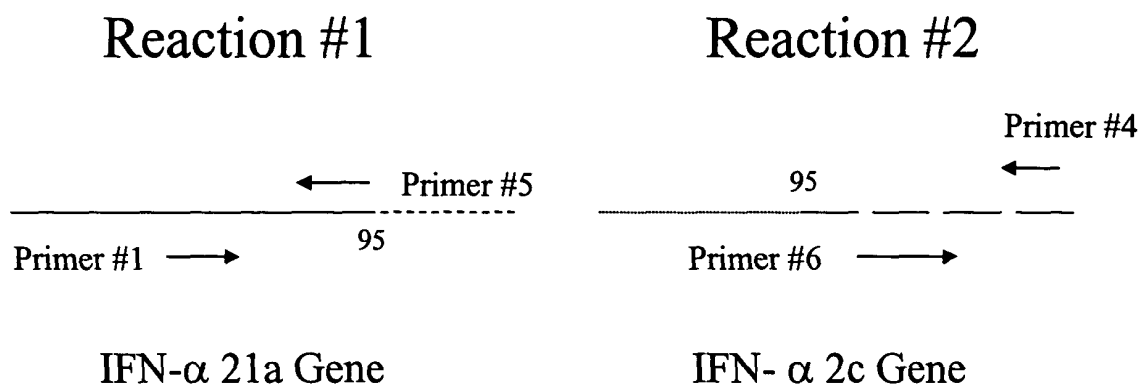
PCR #2



Construction of Hybrid #1

FIG. 1A

PCR #1



↓ PCR Amplification

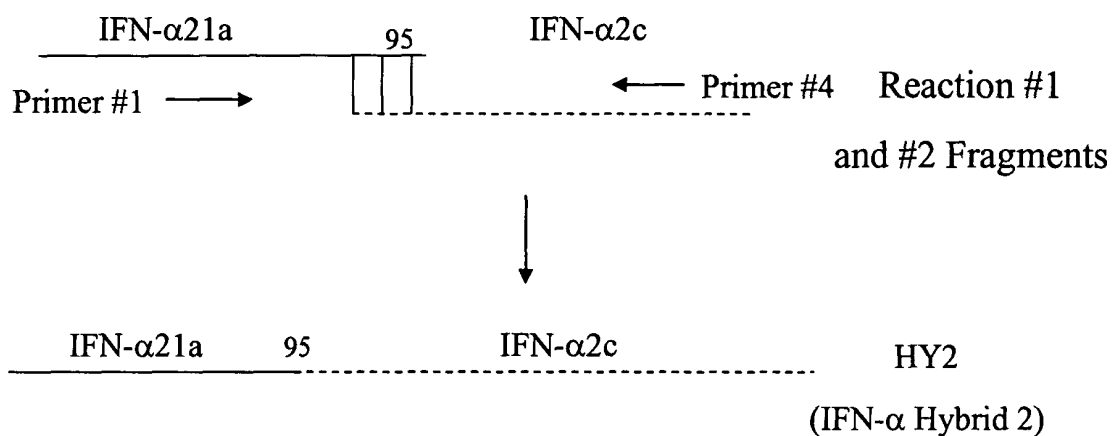
95

α 21a DNA Fragments

95

α 2c DNA Fragments

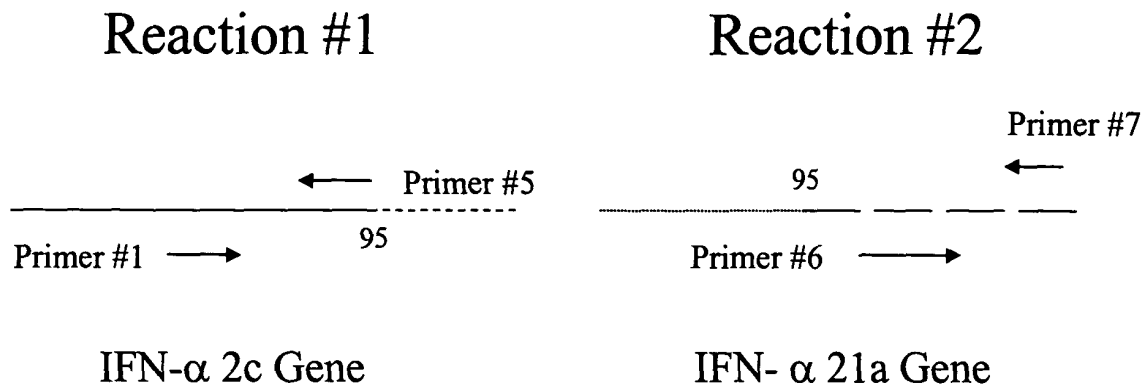
PCR #2



Construction of Hybrid #2

FIG. 1B

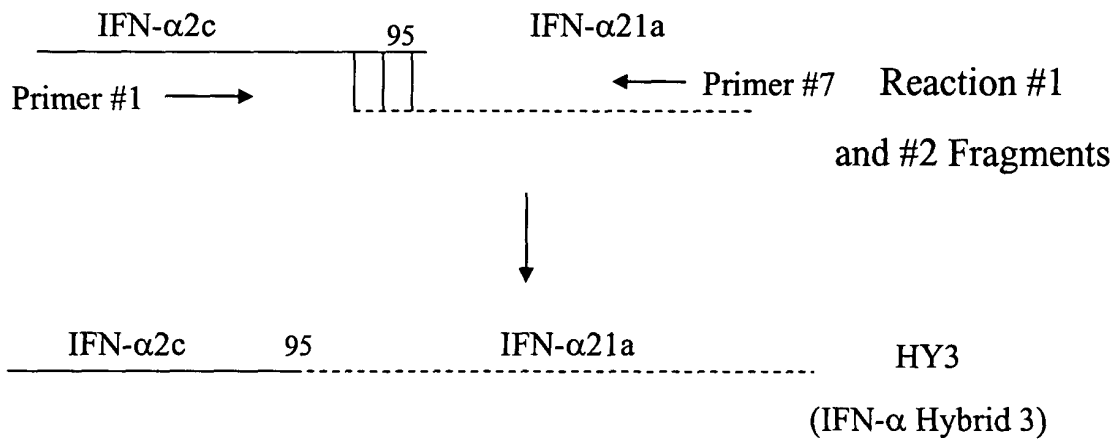
PCR #1



↓ PCR Amplification



PCR #2



Construction of Hybrid #3

FIG. 1C

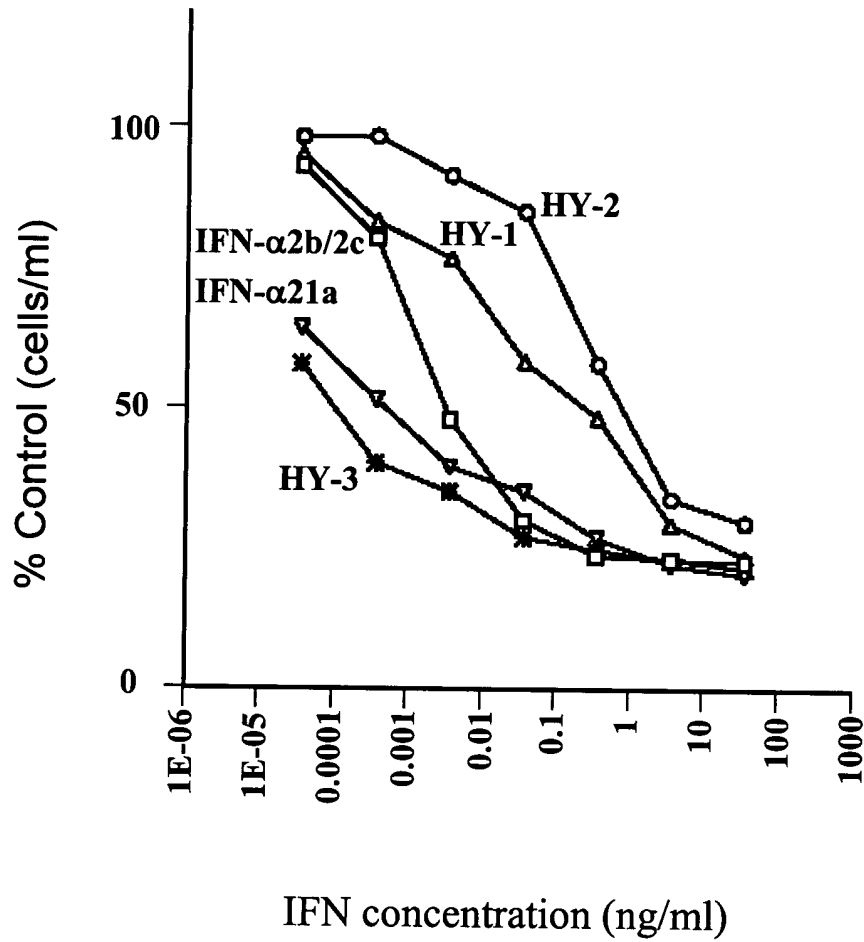


FIG. 2A

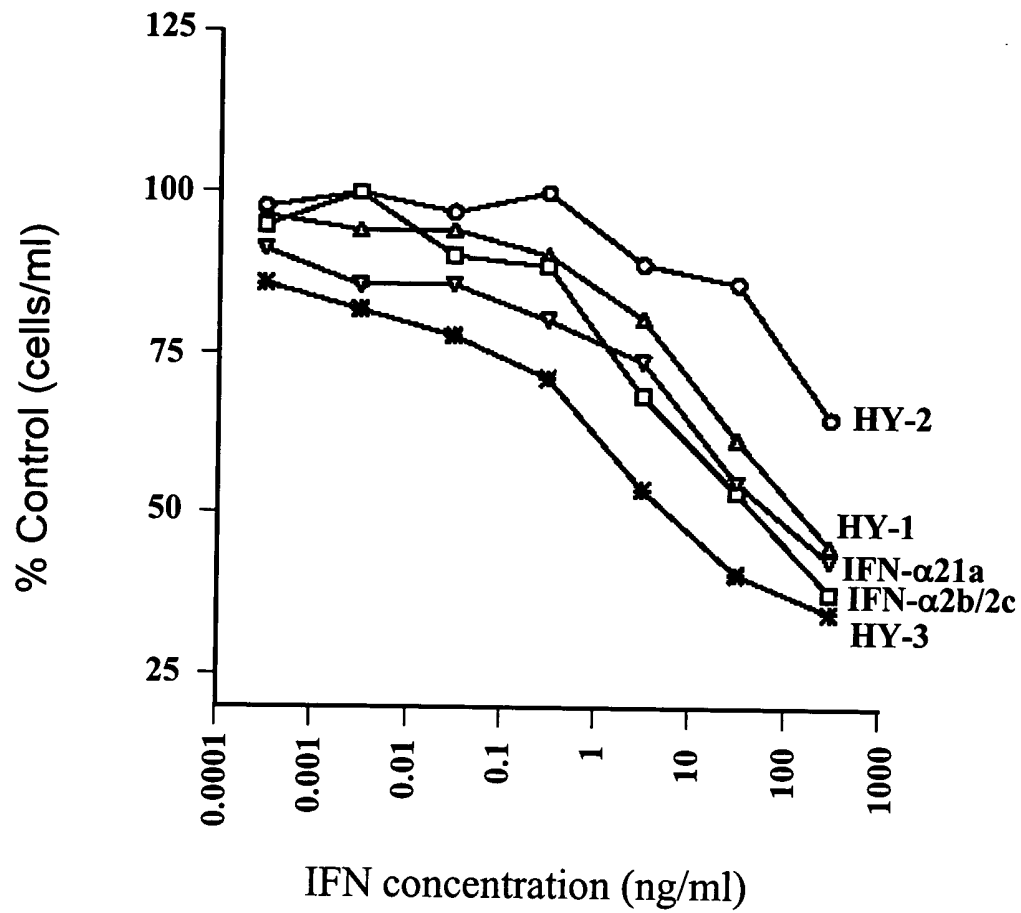


FIG. 2B

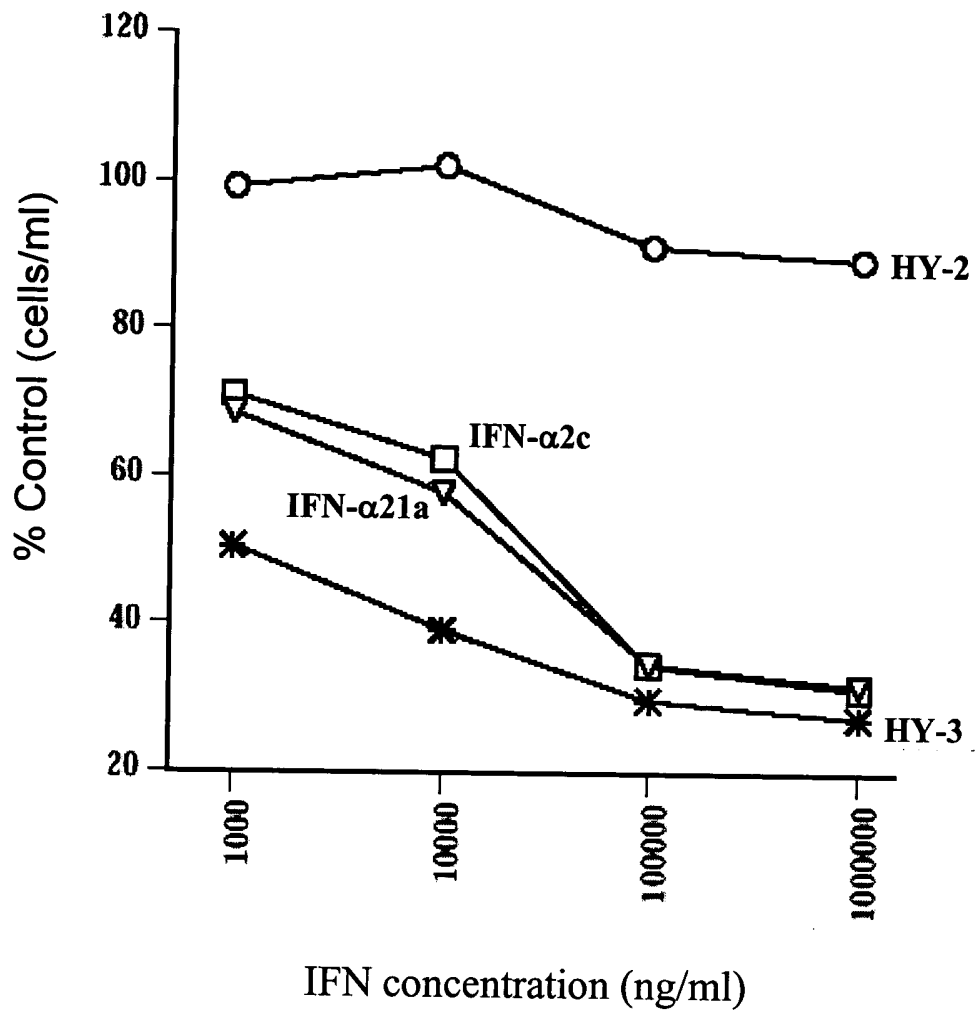


FIG. 2C

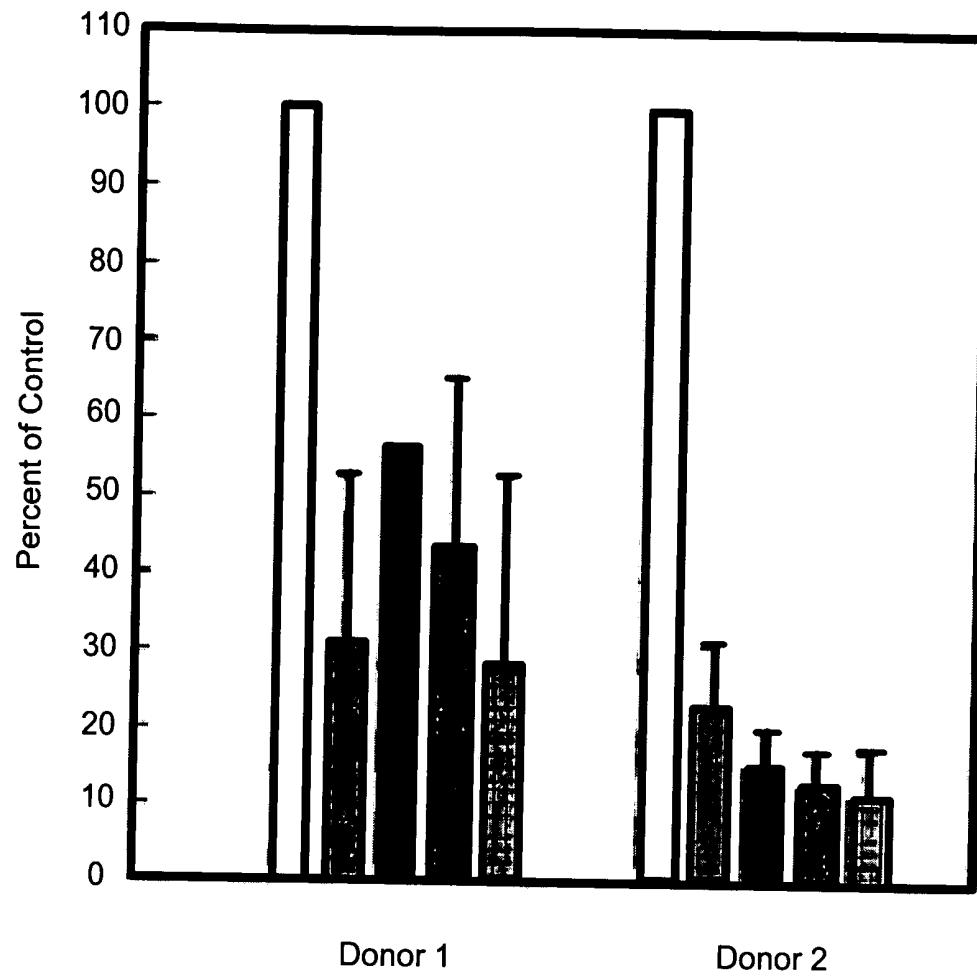


FIG. 3

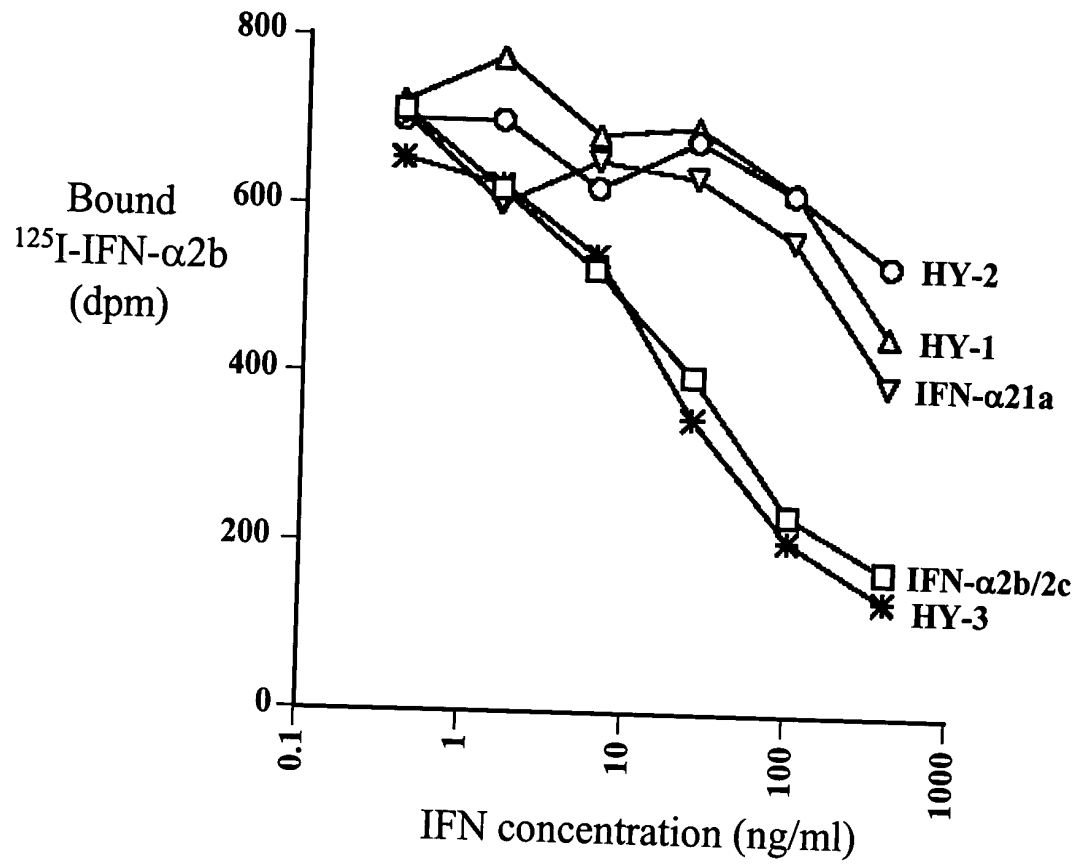


FIG. 4A

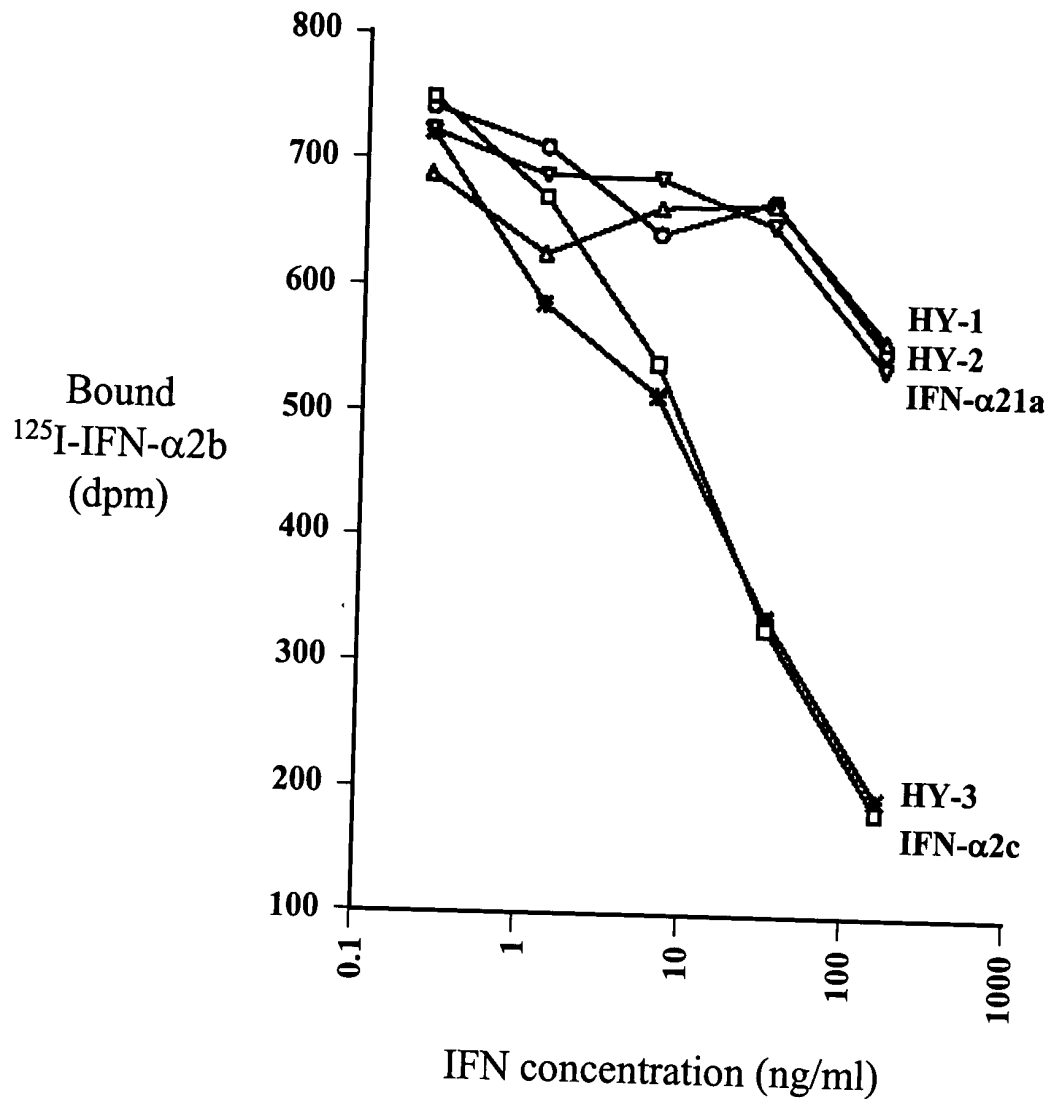


FIG. 4B

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alpha 2c	C	D	L	P	Q	T	H	S	L	G		R	R		L		L
Alpha 21a	C	D	L	P	Q	T	H	S	L	G		R	R		L		L
HY-1	C	D	L	P	Q	T	H	S	L	G		R	R		L		L
HY-2	C	D	L	P	Q	T	H	S	L	G		R	R		L		L
HY-3	C	D	L	P	Q	T	H	S	L	G		R	R		L		L
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Alpha 2c	L	A	Q	M		R	I	S		F	S	C	L	K	D	R	
Alpha 21a	L	A	Q	M		R	I	S		F	S	C	L	K	D	R	
HY-1	L	A	Q	M		R	I	S		F	S	C	L	K	D	R	
HY-2	L	A	Q	M		R	I	S		F	S	C	L	K	D	R	
HY-3	L	A	Q	M		R	I	S		F	S	C	L	K	D	R	
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Alpha 2c	D	F	G	F	P	Q	E	E	F	*	G	N	Q	F	Q	K	A
Alpha 21a	D	F	G	F	P	Q	E	E	F	D	G	N	Q	F	Q	K	A
HY-1	D	F	G	F	P	Q	E	E	F	D	G	N	Q	F	Q	K	A
HY-2	D	F	G	F	P	Q	E	E	F	D	G	N	Q	F	Q	K	A
HY-3	D	F	G	F	P	Q	E	E	F	*	G	N	Q	F	Q	K	A
	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
Alpha 2c			I		V	L	H	E	M	I	Q	Q		F	N	L	F
Alpha 21a			I		V	L	H	E	M	I	Q	Q		F	N	L	F
HY-1			I		V	L	H	E	M	I	Q	Q		F	N	L	F
HY-2			I		V	L	H	E	M	I	Q	Q		F	N	L	F
HY-3			I		V	L	H	E	M	I	Q	Q		F	N	L	F
	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Alpha 2c	S	T	K	D	S	S	A		W				L	L		K	F
Alpha 21a	S	T	K	D	S	S	A		W				L	L		K	F
HY-1	S	T	K	D	S	S	A		W				L	L		K	F
HY-2	S	T	K	D	S	S	A		W				L	L		K	F
HY-3	S	T	K	D	S	S	A		W				L	L		K	F
	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102
Alpha 2c		T	E	L		Q	Q	L	N	D	L	E	A	C	V	I	Q
Alpha 21a		T	E	L		Q	Q	L	N	D	L	E	A	C	V	I	Q
HY-1		T	E	L		Q	Q	L	N	D	L	E	A	C	V	I	Q
HY-2		T	E	L		Q	Q	L	N	D	L	E	A	C	V	I	Q
HY-3		T	E	L		Q	Q	L	N	D	L	E	A	C	V	I	Q
	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
Alpha 2c		V	G	V		E	T	P	L	M			D	S	I	L	A
Alpha 21a		V	G	V		E	T	P	L	M			D	S	I	L	A
HY-1		V	G	V		E	T	P	L	M			D	S	I	L	A
HY-2		V	G	V		E	T	P	L	M			D	S	I	L	A
HY-3		V	G	V		E	T	P	L	M			D	S	I	L	A
	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136
Alpha 2c	V		K	Y	F	Q	R	I	T	L	Y	L		E	K	K	Y
Alpha 21a	V		K	Y	F	Q	R	I	T	L	Y	L		E	K	K	Y
HY-1	V		K	Y	F	Q	R	I	T	L	Y	L		E	K	K	Y
HY-2	V		K	Y	F	Q	R	I	T	L	Y	L		E	K	K	Y
HY-3	V		K	Y	F	Q	R	I	T	L	Y	L		E	K	K	Y
	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153
Alpha 2c	S	P	C	A	W	E	V	V	R	A	E	I	M	R	S	F	S
Alpha 21a	S	P	C	A	W	E	V	V	R	A	E	I	M	R	S	F	S
HY-1	S	P	C	A	W	E	V	V	R	A	E	I	M	R	S	F	S
HY-2	S	P	C	A	W	E	V	V	R	A	E	I	M	R	S	F	S
HY-3	S	P	C	A	W	E	V	V	R	A	E	I	M	R	S	F	S
	154	155	156	157	158	159	160	161	162	163	164	165	166				
Alpha 2c	L	S				Q	E		L	R		K	E				
Alpha 21a	L	S				Q	E		L	R		K	E				
HY-1	L	S				Q	E		L	R		K	E				
HY-2	L	S				Q	E		L	R		K	E				
HY-3	L	S				Q	E		L	R		K	E				

FIG. 5

FIG. 5